Caltrans

Construction Storm Water Pollution Prevention Bulletin

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The Storm Water Pollution Prevention Bulletin is prepared by the Storm Water Compliance Review Task Force to aid all projects and operations in maintaining compliance with the National Pollutant Discharge Elimination System (NPDES) permit requirements.

Construction Non-Storm Water Pollution Prevention

At this time of year, most construction contractors are in full swing installing, maintaining and amending winter season storm water pollution prevention measures. However, contractors should also review current practices for managing non-storm pollution discharges, as well. Recent Storm Water Compliance Task Force winter season reviews have detected several trends in non-storm water discharge management that are of concern. One of these is construction site fueling operations.

Construction Site Fueling Operations

A recurring concern is the management of non-storm water discharges associated with vehicle and equipment fueling operations (CD 19). Given the amount of fueling that occurs on a typical construction site, it is easy to understand the potential for pollution these operations present if not conducted using established Best Management Practices appropriate for the site.

Example of unacceptable fuel tank installation. No secondary containment or fueling pad

Of particular concern is the inappropriate selection or poor construction of secondary containment systems. Many construction contractors have elected to meet compliance requirements by using plastic sheeting and sandbags for the secondary containment system. While this practice meets the current minimum installation requirement, it is not appropriate for use on projects lasting longer than a few months. The constant maintenance required and the inability of plastic sheeting to contain fuels sufficiently make this an unacceptable solution for projects of extended duration. In fact, some plastic sheeting appears to dissolve when exposed to gasoline.

Construction Site Fueling Operations

Keys points to follow when implementing fueling operations using plastic sheeting for secondary containment:

- The facility must be inspected weekly and the results reviewed for practicality.
- The sheeting must be able to withstand fuels. It should also be seamless to prevent leaks, overlapping of the plastic is insufficient.
- If the system consistently requires maintenance due to rips or deterioration from weather, it will be necessary to upgrade the containment system.
- Optimally, secondary containment systems should last the duration of the project with only minimal maintenance. Concrete pads with wood covers are becoming common on projects expected to last a year or longer. For shorter projects, offsite fueling may be easier to manage and is preferred from a pollution prevention standpoint.

Mobile fueling operations present other challenges to the contractor. Drip pans or drop cloths are required during fueling to catch spills or leaks. The most difficult obstacle is providing a contained parking stall for the fueling vehicle. If a paved surface can be used, sandbags filled with a commercial absorbent should be placed around the perimeter to contain inadvertent leaks and spills. The absorbent should be spread freely around the stall to fill any gaps. Used material must be disposed as hazardous waste after a spill. For dirt stalls, plastic sheeting can be used under the dirt as a barrier.

Protected parking for mobile fuel vehicle. Note plastic sheeting under dirt.

Additional information is available in the Caltrans Storm Water Quality Handbooks. Questions or comments may be directed to:

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